

First part (setup):

```
root@da342a0fc79a: /
PS C:\WINDOWS\system32> docker pull ubuntu:16.04
16.04: Pulling from library/ubuntu
Digest: sha256:9775877f420d453ef790e6832d77630a49b32a92b7bedf330adf4d8669f6600e
Status: Image is up to date for ubuntu:16.04
docker.io/library/ubuntu:16.04
PS C:\WINDOWS\system32> docker run -it ubuntu:16.04 /bin/bash
root@da342a0fc79a:/# ping google.com
bash: ping: command not found
root@da342a0fc79a:/# apt-get update
Get:1 http://archive.ubuntu.com/ubuntu xenial InRelease [247 kB]
Get:2 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Get:3 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [2051 kB]
Get:4 http://archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:5 http://archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Get:6 http://archive.ubuntu.com/ubuntu xenial/main amd64 Packages [1558 kB]
Get:7 http://archive.ubuntu.com/ubuntu xenial/restricted amd64 Packages [14.1 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial/universe amd64 Packages [9827 kB]
Get:9 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages [15.9 kB]
Get:10 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [984 kB]
Get:11 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 Packages [8820 B]
Get:12 http://archive.ubuntu.com/ubuntu xenial/multiverse amd64 Packages [176 kB]
Get:13 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [2559 kB]
Get:14 http://archive.ubuntu.com/ubuntu xenial-updates/restricted amd64 Packages [16.4 kB]
Get:15 http://archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages [1544 kB]
Get:16 http://archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 Packages [26.2 kB]
Get:17 http://archive.ubuntu.com/ubuntu xenial-backports/main amd64 Packages [10.9 kB]
Get:18 http://archive.ubuntu.com/ubuntu xenial-backports/universe amd64 Packages [12.7 kB]
Fetched 19.4 MB in 57s (339 kB/s)
Reading package lists... Done
root@da342a0fc79a:/# apt-get install iputils-ping
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libffi6 libgmp10 libgnutls-openssl127 libgnutls30 libhogweed4 libidn11 libnettle6 libp11-kit0 libtasn1-6
Suggested packages:
  gnutls-bin
The following NEW packages will be installed:
  iputils-ping libffi6 libgmp10 libgnutls-openssl127 libgnutls30 libhogweed4 libidn11 libnettle6 libp11-kit0 libtasn1-6
0 upgraded, 10 newly installed, 0 to remove and 5 not upgraded.
Need to get 1307 kB of archives.
After this operation, 3781 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://archive.ubuntu.com/ubuntu xenial/main amd64 libgmp10 amd64 2:6.1.0+dfsg-2 [240 kB]
Get:2 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libnettle6 amd64 3.2-1ubuntu0.16.04.2 [93.7 kB]
Get:3 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libhogweed4 amd64 3.2-1ubuntu0.16.04.2 [136 kB]
Get:4 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libidn11 amd64 1.32-3ubuntu1.2 [46.5 kB]
Get:5 http://archive.ubuntu.com/ubuntu xenial/main amd64 libffi6 amd64 3.2.1-4 [17.8 kB]
Get:6 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libp11-kit0 amd64 0.23.2-5~ubuntu16.04.2 [107 kB]
Get:7 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libtasn1-6 amd64 4.7-3ubuntu0.16.04.3 [43.5 kB]
Get:8 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls30 amd64 3.4.10-4ubuntu1.8 [548 kB]
Get:9 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnutls-openssl127 amd64 3.4.10-4ubuntu1.8 [21.9 kB]
Get:10 http://archive.ubuntu.com/ubuntu xenial/main amd64 iputils-ping amd64 3:20121221-5ubuntu2 [52.7 kB]
Fetched 1307 kB in 2s (578 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package libgmp10:amd64.
(Reading database ... 4785 files and directories currently installed.)
Preparing to unpack .../libgmp10_2%3a6.1.0+dfsg-2_amd64.deb ...
Unpacking libgmp10:amd64 (2:6.1.0+dfsg-2) ...
Selecting previously unselected package libnettle6:amd64.
Preparing to unpack .../libnettle6_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libnettle6:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libhogweed4:amd64.
Preparing to unpack .../libhogweed4_3.2-1ubuntu0.16.04.2_amd64.deb ...
Unpacking libhogweed4:amd64 (3.2-1ubuntu0.16.04.2) ...
Selecting previously unselected package libidn11:amd64.
Preparing to unpack .../libidn11_1.32-3ubuntu1.2_amd64.deb ...
Unpacking libidn11:amd64 (1.32-3ubuntu1.2) ...
Selecting previously unselected package libffi6:amd64.
Preparing to unpack .../libffi6_3.2.1-4_amd64.deb ...
Unpacking libffi6:amd64 (3.2.1-4) ...
Selecting previously unselected package libp11-kit0:amd64.
```

Pinging youtube:

```
Administrator: Windows PowerShell
root@da342a0fc79a:/# ping youtube.com
PING youtube.com (142.250.66.110) 56(84) bytes of data.
64 bytes from 142.250.66.110: icmp_seq=1 ttl=37 time=24.3 ms
64 bytes from 142.250.66.110: icmp_seq=2 ttl=37 time=24.0 ms
64 bytes from 142.250.66.110: icmp_seq=3 ttl=37 time=23.8 ms
64 bytes from 142.250.66.110: icmp_seq=4 ttl=37 time=23.7 ms
64 bytes from 142.250.66.110: icmp_seq=5 ttl=37 time=23.8 ms
64 bytes from 142.250.66.110: icmp_seq=6 ttl=37 time=24.1 ms
64 bytes from 142.250.66.110: icmp_seq=7 ttl=37 time=23.9 ms
64 bytes from 142.250.66.110: icmp_seq=8 ttl=37 time=23.9 ms
64 bytes from 142.250.66.110: icmp_seq=9 ttl=37 time=23.7 ms
64 bytes from 142.250.66.110: icmp_seq=10 ttl=37 time=23.7 ms
64 bytes from 142.250.66.110: icmp_seq=11 ttl=37 time=23.9 ms
64 bytes from 142.250.66.110: icmp_seq=12 ttl=37 time=23.8 ms
64 bytes from 142.250.66.110: icmp_seq=13 ttl=37 time=23.8 ms
64 bytes from 142.250.66.110: icmp_seq=14 ttl=37 time=24.0 ms
64 bytes from 142.250.66.110: icmp_seq=15 ttl=37 time=23.8 ms
64 bytes from 142.250.66.110: icmp_seq=16 ttl=37 time=23.7 ms
64 bytes from 142.250.66.110: icmp_seq=17 ttl=37 time=23.7 ms
64 bytes from 142.250.66.110: icmp_seq=18 ttl=37 time=23.9 ms
64 bytes from 142.250.66.110: icmp_seq=19 ttl=37 time=23.9 ms
64 bytes from 142.250.66.110: icmp_seq=20 ttl=37 time=23.6 ms
64 bytes from 142.250.66.110: icmp_seq=21 ttl=37 time=23.6 ms
64 bytes from 142.250.66.110: icmp_seq=22 ttl=37 time=23.6 ms
64 bytes from 142.250.66.110: icmp_seq=23 ttl=37 time=23.8 ms
64 bytes from 142.250.66.110: icmp_seq=24 ttl=37 time=24.1 ms
64 bytes from 142.250.66.110: icmp_seq=25 ttl=37 time=23.9 ms
64 bytes from 142.250.66.110: icmp_seq=26 ttl=37 time=23.9 ms
^C
--- youtube.com ping statistics ---
26 packets transmitted, 26 received, 0% packet loss, time 25041ms
rtt min/avg/max/mdev = 23.665/23.887/24.342/0.159 ms
root@da342a0fc79a:/# exit
exit
```

I didn't realize that the pinging would go on indefinitely until I reread the instructions, hence the many sequences.

Committing changes:

```
Administrator: Windows PowerShell
exit
PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
da342a0fc79a   ubuntu:16.04  "/bin/bash"            12 minutes ago  Exited (0) 12 seconds ago                nifty_stonebraker
PS C:\WINDOWS\system32> docker commit --help

Usage: docker commit [OPTIONS] CONTAINER [REPOSITORY[:TAG]]

Create a new image from a container's changes

Options:
  -a, --author string      Author (e.g., "John Hannibal Smith
                             <hannibal@a-team.com>")
  -c, --change list        Apply Dockerfile instruction to the created image
  -m, --message string     Commit message
  -p, --pause              Pause container during commit (default true)
PS C:\WINDOWS\system32> docker commit -a 'Michael Medrano' -m 'Added ping utility.' akanezuki/ping
Error response from daemon: No such container: akanezuki/ping
PS C:\WINDOWS\system32> docker images
REPOSITORY      TAG         IMAGE ID      CREATED        SIZE
docker/getting-started  latest      083d7564d904   2 hours ago    28MB
ubuntu          16.04      9ff95a467e45   3 weeks ago    135MB
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
PS C:\WINDOWS\system32> docker commit -a 'Michael Medrano' -m 'Added ping utility.' da3 akanezuki/ping
sha256:4dc0cc66962709eddba41bf079345c54e75ee618e5db117f7df4e8ffa6ebe255
PS C:\WINDOWS\system32> docker images
REPOSITORY      TAG         IMAGE ID      CREATED        SIZE
akanezuki/ping   latest      4dc0cc669627   17 seconds ago  170MB
docker/getting-started  latest      083d7564d904   2 hours ago    28MB
ubuntu          16.04      9ff95a467e45   3 weeks ago    135MB
PS C:\WINDOWS\system32> docker run -it --rm akanezuki/ping /bin/bash
root@8c4e3c9da47e:/# ping facebook.com
PING facebook.com (69.171.250.35) 56(84) bytes of data.
64 bytes from 69.171.250.35: icmp_seq=1 ttl=37 time=23.5 ms
64 bytes from 69.171.250.35: icmp_seq=2 ttl=37 time=23.6 ms
64 bytes from 69.171.250.35: icmp_seq=3 ttl=37 time=23.5 ms
64 bytes from 69.171.250.35: icmp_seq=4 ttl=37 time=23.6 ms
64 bytes from 69.171.250.35: icmp_seq=5 ttl=37 time=23.4 ms
64 bytes from 69.171.250.35: icmp_seq=6 ttl=37 time=23.5 ms
64 bytes from 69.171.250.35: icmp_seq=7 ttl=37 time=23.3 ms
64 bytes from 69.171.250.35: icmp_seq=8 ttl=37 time=23.4 ms
^C
--- facebook.com ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 701ms
rtt min/avg/max/mdev = 23.369/23.538/23.679/0.121 ms
root@8c4e3c9da47e:/# exit
exit
PS C:\WINDOWS\system32>
```

I forgot to add the first few characters of the container ID to the commit which I fixed shortly after.